

WHAT IS CLAIMED IS:

1. A method for marking workpieces on punch presses, wherein a marking tool having a tool tip is forced by means of a punch stroke onto or into the surface of a sheet-shaped workpiece, which is displaceable in its plane, comprising:

forcing the tool tip onto or into the surface of a workpiece;

maintaining the tool in a marking position;

displacing the workpiece corresponding to contours of a shape to be marked;

and

moving the tool away from the workpiece.

2. The method according to claim 1, further comprising mounting the marking tool in a punch holder of the punch press or in a holder at the workpiece support table.

3. The method according to claim 1, wherein at least a portion of the punch stroke is absorbed by an elastic element extending between a workpiece supporting table and the punch tool holder.

4. The method according to claim 3, further comprising forming a center mark after the tool tip has entered the workpiece, and maintaining the tool in a predetermined position until the marking tool is retracted.

5. The method according to claim 4, comprising forcing the tool tip deeper into the workpiece when forming a center mark than during the marking process.

6. The method according to claim 5, wherein, during said step of forcing, spring travel of the tool tip reaches its limit before deepest penetration of the tool tip has been reached.

7. The method according to claim 1, further comprising guiding the workpiece by at least one support roller or support ball in the area of the workpiece supporting table and/or the punch holder.

8. The method of claim 1, wherein the step of forcing the tool tip comprises forcing the tool tip into the surface of the workpiece, such that displacing the workpiece causes inscribing the shape to be marked.

9. The method of claim 1, wherein the step of forcing the tool tip comprises forcing the tool tip against the surface of the workpiece, such that displacing the workpiece causes marking the desired shape on the surface of the workpiece.

10. The method of claim 1, wherein the workpiece has a plastic protective film, and the step of forcing tool tip comprises forcing a tool tip against the surface of the workpiece a sufficient amount to cut the plastic film but not penetrate the surface of the workpiece.

11. The method of claim 1, wherein the step of forcing the tool tip comprises forcing a deburring tool against the workpiece to remove rough edges from the workpiece.

12. An apparatus for marking a sheet-shaped workpiece, comprising at least one marking tool and at least one counter-support on the side of the workpiece located opposite the marking tool, wherein the marking tool has a tool tip, which can be pressed onto or into the workpiece against a restoring force of an elastic element, the marking tool being fixed in place on a punch holder or the holder at the workpiece support table of a punch press, and wherein the counter-support can be fixed in place on the other side of the workpiece.

13. The apparatus according to claim 12, wherein the counter-support includes at least one rotatable support roller or support ball for the movable support of the workpiece.

14. The apparatus according to claim 12 wherein the marking tool includes rotatable support rollers or support balls, seated in an elastically spring-loaded manner.

15. The apparatus according to claim 14, wherein spring travel of the support rollers or support balls is greater than spring travel of the tool tip.

16. The apparatus according to claim 15, wherein, in a rest position, the tool tip projects upwardly less than the support rollers or support balls, but wherein the support rollers or support balls are resiliently retractable to a lower position than the tool tip.

17. The apparatus according to claim 14, wherein resiliency of the elastic elements of the support rollers is less than resiliency of the elastic element of the tool tip.

18. The apparatus according to claim 12, wherein the tool tip is selected from the group consisting of diamond, boron nitride or a hard alloy.

19. The apparatus according to claim 12 wherein the tool tip is cone-shaped.

20. The apparatus according to claim 12, including an adjustable support associated with the marking tool, by means of which the position of the tool tip and/or the prestress of its restoring spring can be adjusted.

21. The apparatus according to claim 12, wherein the marking tool comprises a tip capable of penetrating the surface of the workpiece to a predetermined depth to inscribe a mark.

22. The apparatus according to claim 12, wherein the marking tool comprises an ink point for writing a marking on the surface of the workpiece.

23. The apparatus according to claim 22, wherein the ink point comprises a ball point, a roller ball point, a felt tip or a grease pencil.

24. The apparatus according to claim 12, wherein the marking tool comprises brass or plastic.